REMARKS

With this amendment, Applicants have cancelled claim 83, without prejudice, and amended claim 82 to incorporate the limitations of cancelled claim 83. No new matter has been added by way of these amendments. This amendment responds to the February 23, 2005 Office Action. Applicants thank the Examiner for acknowledging the patentability of claims 47-53, 64-73, and 86. In the Office Action the Examiner:

- rejected claims 45, 46, 54-63, 74-85, and 87-90 under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 4,010,650 to Piatkowski (hereinafter "Piatkowski") in view of United States Patent No. 5,928,503 to Shang-Chun (hereinafter "Shang-Chun"); and
- objected to claims 47-53, 64-73, and 86 as being dependent upon a rejected base claim.

THE 35 U.S.C. § 103(a) REJECTION OF CLAIMS 45, 46, AND 54-59 SHOULD BE WITHDRAWN

The Examiner has rejected independent claim 45 as well as claims 46 and 54-59, which each depend from claim 45, under 35 U.S.C. § 103(a) as being unpatentable over Piatkowski in view of Shang-Chun. Applicants traverse the rejection of these claims for the following reasons.

To reject claims in an application under 35 U.S.C. § 103, the PTO bears the initial burden of establishing a prima facie case of obviousness. *In re Bell*, 26 USPQ2d 1529, 1530 (Fed. Cir. 1993). In order to establish prima facie obviousness, three basic criteria must be met. First, the prior art must provide one of ordinary skill in the art with a suggestion or motivation to modify or combine the teachings of the references relied upon by the PTO to arrive at the claimed invention. *WMS Gaming Inc. v. International Game Technology*, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). Second, the prior art must provide one of ordinary skill in the art with a reasonable expectation of success. See *In re O'Farrell*, 7 USPQ2d 1673 (Fed. Cir. 1988); *In re Dow Chemical Co.*, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Third, the prior art, either alone or in combination, must teach or suggest each and every limitation of the rejected claims. See *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991); *In re Royka and Martin* 180 USPQ 580 (C.C.P.A. 1974); and *In re Wilson* 165 USPQ 494 (C.C.P.A. 1970). The teaching or suggestion to make the claimed invention, as well as the reasonable

expectation of success, must come from the prior art, not Applicants' disclosure. *In re Vaeck, supra*. If any one of these criteria is not met, prima facie obviousness is not established.

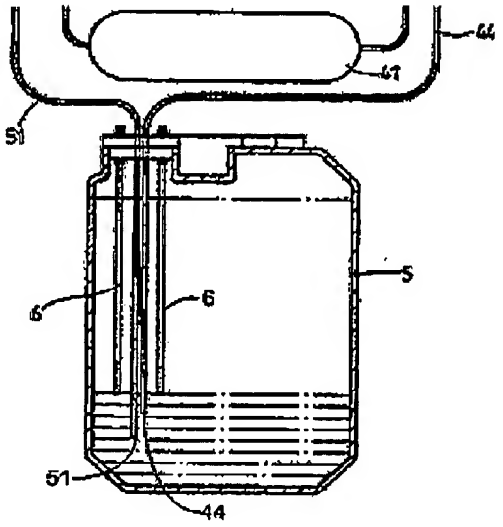
Here one relevant inquiry is whether the combination of Piatkowski and Shang-Chun teaches or suggests each and every limitation of the rejected claims. Claim 45 recites a control unit "wherein the control unit determines *changes in the water level in said filtered water container from the signals received from the detection circuitry and thereby determines said amount of filtered water added to and/or consumed from said filtered water container.*" (emphasis added). The combination of Piatkowski and Shang-Chun does not teach or suggest such a control unit.

Piatkowski teaches an apparatus having a DC liquid level indicating gauge 94 that indicates the level of liquid in a reservior. As noted in column 6, lines 30-50, of Piatkowski, gauge 94 is a ratiometer that is responsive to a current through a gauge electrical coil 100 which is proportional to the liquid level in the reservoir. As such, gauge 94 indicates only the current liquid level in the reservior - it cannot retain any information about previous liquid levels and therefore cannot measure "changes in the water level" as claimed. Moreover, Piatkowski also cannot "determine[] said amount of filtered water added to and/or consumed from" a container, as claimed.

Shang-Chun does not remedy the deficiencies in Piatkowski. Shang-Chun discloses a drinking water purification machine in which unpurified water is recycled back to an original reservoir 5. However, Shang-Chun does not determine "changes" in water level and cannot "determine[] said amount of filtered water added to and/or consumed from" a container, as claimed. As such, no combination of Piatkowski and Shang-Chun teaches or suggests each of the elements of Applicants' claim 45. Claims 46 and 54-59 ultimately depend from claim 45 and are therefore patentable over any combination of Piatkowski and Shang-Chun for at least the same reasons that claim 45 is patentable over these references.

Claim 56 is patentable over the combination of Piatkowski and Shang-Chun for at least the following additional reasons. Claim 56 recites a detection sensor that comprises one or more *additional electrode pairs*. In the February 23, 2005 Office Action, the Examiner noted that Piatkowski does not teach one or more additional electrode pairs. However, the Examiner contends that Shang-Chun does, citing Figures 1 and 2 of Piatkowski. Specifically, the Examiner alleges that level sensor 6 has four electrodes. On this basis, the Examiner contends that it would have been obvious to one skilled in the art at the time the invention was made to include one additional electrode pair in a reservoir. The Examiner, however, is incorrect. Shang-Chun's water level sensor 6 has only two electrodes not four. The

Examiner has misinterpreted outlet pipe 44 and pipe 51 as electrodes. Outlet pipe 44 and pipe 51 transport water between original reservoir 5 and storage tank 1. For the Examiner's convenience, Applicants reproduce the bottom portion of Fig. 2 of Shang-Chun with the elements more clearly labeled:



As the annotated illustration clearly shows, elements 51 and 44 are not additional electrodes. Thus, level sensor 6 consists of only two electrodes. As such, the combination of Piatkowski and Shang-Chun does not teach or suggest the use of one or more additional electrode pairs as recited in claim 56. Claims 57 and 58 depend from claim 56 and are patentable over the combination of Piatkowski and Shang-Chun for at least the same additional reasons that claim 56 is patentable over this combination of references.

THE 35 U.S.C. § 103(a) REJECTION OF CLAIMS 60-63 and 74-81 SHOULD BE WITHDRAWN

The Examiner has rejected independent claim 60 as well as claims 61-63 and 74-81, which each depend from claim 60, under 35 U.S.C. § 103(a) as being unpatentable over Piatkowski in view of Shang-Chun. Applicants traverse the rejection of these claims for at least the following reasons.

First, as explained above in connection with claim 56, neither Piatkowski nor Shang-Chun teach "a plurality of electrode pairs" as recited in claim 60. Second, as explained above in connection with claim 45, neither Piatkowski nor Shang-Chun teach or suggest

determining "changes in the water level" or "determin[ing] the amount of water added to and/or consumed from" a container as claimed. Accordingly, claim 60 is patentable over any combination of Piatkowski and Shang-Chun. Claims 61-63 and 74-81 ultimately depend from claim 60 and are therefore patentable over the combination of references for at least the same reasons.

In addition, the combination of Piatkowski and Shang-Chun does not teach or suggest, for example, "between 2 electrode pairs and 10 electrode pairs" as recited in claim 62; "more than 10 electrode pairs" as recited in claim 63; a "single common electrode" as recited in claims 78 and 80; "each second electrode in all or a portion of the plurality of electrode pairs has a unique length," as recited in claims 79 and 80; and "a length of each electrode pair in all or a portion of the plurality of electrode pairs is different" as recited in claim 81.

Further, with respect to claims 62 and 63, the Examiner has taken judicial notice that "the use of multiple electrodes pairs to monitor fluid level is well established in the art" and that "[t]he use of multiple pairs of electrodes is predicated on the size and configuration of the container and on the degree of accuracy required" is well established in the art. Applicants disagree with this assessment of the art. Furthermore, Applicants note that such a judicial notice fails to satisfy the Patent Office's burden of establishing a prima facie case of obviousness. Should the Examiner continue to maintain the rejection of claims 62 and 63 on this line or reasoning, Applicants request that the Examiner identify references that support the Examiner's contention.

With respect to claim 79 the Examiner contends that Shang-Chun shows the electrodes to extend in the reservior at different/unique lengths. The Examiner is mistaken. As can be seen in the reproduction of the lower portion of Fig. 2 of Shang-Chun above, electrodes 6 have the same length. Further, the electrodes in Piatkowski are of the same length.

THE 35 U.S.C. § 103(a) REJECTION OF CLAIMS 82 AND 84-85 SHOULD BE WITHDRAWN

The Examiner has rejected independent claim 82 as well as claims 83-85, which each depend from claim 82, under 35 U.S.C. § 103(a) as being unpatentable over Piatkowski in view of Shang-Chun. Applicants have cancelled claim 83, without prejudice, and have incorporated the limitations of cancelled claim 83 into claim 82. Applicants respectfully traverse the rejection. Applicants believe that amended claim 82 is patentable. As discussed above in connection with claim 45, Piatkowski and Shang-Chun do not teach or suggest

determining "changes in the water level" or "determining an amount of filtered water consumption from the changes in the water level," as recited in amended claim 82. Claims 84-85 ultimately depend from claim 82 and are therefore patentable over the combination of references for at least the same reasons. In addition, Piatkowski and Shang-Chun do not teach or suggest "determining a status of a water filter in said filtered water container," as recited in claim 85.

THE 35 U.S.C. § 103(a) REJECTION OF CLAIMS 87-90 SHOULD BE WITHDRAWN

The Examiner has rejected independent claim 87 as well as claims 88-90, which each depend from claim 87, under 35 U.S.C. § 103(a) as being unpatentable over Piatkowski in view of Shang-Chun. Applicants traverse the rejection. As discussed above in connection with claim 56, Piatkowski and Chang-Chun does not teach or suggest "a plurality of electrode pairs," as recited in claim 87. Thus, claim 87 is patentable over the combination of Piatkowski and Shang-Chun. Claims 88-90, which depend from claim 87, are therefore patentable over the combination of references for at least the same reasons. In addition, Piatkowski and Chang-Chun do not teach or suggest "determining an amount of filtered water consumption" as recited in claim 88; and "determining a status of a water filter," as recited in claim 90.

Furthermore, the Examiner states in connection with claim 83, now canceled, and claim 88 that "an operator can determine the amount of material/water consumption from the change in the level on [a] gauge." There is, however, no teaching or suggestion whatsoever in Piatkowski or Shang-Chun of making such a determination. Applicants according believe that the Examiner's statement is the result of applying improper hindsight derived from Applicants' specification.

CONCLUSION

Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-identified application. If, in the opinion of the Examiner, an telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (415) 875-5744.

No fee is believed owed in connection with filing of this amendment and response. However, should the Commissioner determine otherwise, the Commissioner is authorized to charge any underpayment or credit any overpayment to Jones Day Deposit Account No. 16-1150, Jones Day (CAM No.: 201928-999009) for the appropriate amount. A copy of this sheet is attached.

Respectfully submitted,

Date: July 25, 2005

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